

AMENDMENTS TO THE CLAIMS

By the present amendment:

Claims 1, 55 and 65 are amended.

Claims 17-54 and 62 are cancelled.

The remaining claims are unchanged.

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A copper alloy, consisting essentially of, by weight:
 - from 0.15% to 0.7% of chromium;
 - from 0.005% to 0.3% of silver;
 - from 0.01% to 0.15% of titanium;
 - from 0.01% to 0.10% of silicon;
 - up to 0.2% of iron;
 - up to 0.5% of tin;
 - optionally, from 0.001% to 0.1% of a deoxidizer selected from the group consisting of boron, lithium, calcium and the rare earth metals; and
 - the balance copper and inevitable impurities, wherein said copper alloy is essentially zirconium-free and has an electrical conductivity of at least 80% 75% IACS and a yield strength on the order of 80 ksi, ~~said copper alloy further having substantially homogeneous recrystallized grains and a microstructure commensurate with having been cold-rolled prior to solution annealing.~~

2. (Original) The copper alloy of claim 1, consisting essentially of, by weight:
 - from 0.25% to 0.6% of chromium;
 - from 0.015% to 0.2% of silver;
 - from 0.01% to 0.08% of titanium;
 - from 0.01% to 0.10% of silicon;
 - less than 0.1% of iron;
 - up to 0.25% of tin; and
 - the balance copper and inevitable impurities.
3. (Original) The copper alloy of claim 2 having a maximum of 0.065% of titanium.
4. (Original) The copper alloy of claim 2 having a minimum of 0.05% of titanium.
5. (Original) The copper alloy of claim 2, consisting essentially of, by weight:
 - from 0.3% to 0.55% of chromium;
 - from 0.08% to 0.13% of silver;
 - from 0.02% to 0.065% of titanium;
 - from 0.02% to 0.05% of silicon;
 - from 0.03% to 0.09% of iron;
 - less than 0.05% of tin; and
 - the balance copper and inevitable impurities.
6. (Original) The copper alloy of claim 21 wherein a ratio, by weight, of iron to titanium, Fe:Ti, is from 0.9:1 to 1.1:1.0.7:1 to 2.5:1.
7. (Original) The copper alloy of claim 6 where Fe:Ti is about 1:1. from 0.9:1 to 1.7:1.
8. (Original) The copper alloy of claim 6 wherein at least a portion of the iron is replaced with cobalt on a 1:1, by weight, basis.
9. (Cancelled)

10. (Original) The copper alloy of claim 1 having a Quality Function Deployment, QFD, value in excess of 50 for both automotive and multimedia applications.

11. (Original) The copper alloy of claim 1 further containing from 0.05% to 0.2%, by weight, of magnesium.

12. (Original) The copper alloy of claim 10 formed into an electrical connector.

13. (Previously Amended) The copper alloy of claim 12 wherein said electrical connector has a box shape.

14. (Original) The copper alloy of claim 10 formed into a leadframe.

15. (Original) The copper alloy of claim 1 formed into a rod.

16. (Original) The copper alloy of claim 1 formed into a wire.

17. – 54. (Cancelled)

55. (Presently Amended) A copper alloy, consisting of, by weight:

from 0.15% to 0.7% of chromium;

from 0.005% to 0.3% of silver;

from 0.01% to 0.15% of titanium;

from 0.01% to 0.10% of silicon;

up to 0.2% of iron;

up to 0.5% of tin; and

the balance copper and inevitable impurities, wherein said copper alloy has an electrical conductivity of at least ~~80%~~ 75% IACS.

56. (Previously Added) The copper alloy of claim 1, consisting of, by weight:
from 0.25% to 0.6% of chromium;
from 0.015% to 0.2% of silver;
from 0.01% to 0.08% of titanium;
from 0.01% to 0.10% of silicon;
less than 0.1% of iron;
up to 0.25% of tin; and
the balance copper and inevitable impurities.
57. (Previously Added) The copper alloy of claim 56 having a maximum of 0.065% of titanium.
58. (Previously Added) The copper alloy of claim 56 having a minimum of 0.05% of titanium.
59. (Previously Added) The copper alloy of claim 56, consisting of, by weight:
from 0.3% to 0.55% of chromium;
from 0.08% to 0.13% of silver;
from 0.02% to 0.065% of titanium;
from 0.02% to 0.05% of silicon;
from 0.03% to 0.09% of iron;
less than 0.05% of tin; and
the balance copper and inevitable impurities.
60. (Previously Added) The copper alloy of claim 55 wherein a ratio, by weight, of iron to titanium, Fe:Ti, is from 0.9:1 to 1.1:1.0.7:1 to 2.5:1.
61. (Previously Added) The copper alloy of claim 60 where Fe:Ti is about 1:1. from 0.9:1 to 1.7:1.
62. (Cancelled)

63. (Previously Added) The copper alloy of claim 55 having a Quality Function Deployment, QFD, value in excess of 50 for both automotive and multimedia applications.

64. (Previously Added) The copper alloy of claim 63 formed into an electrical connector.

65. (Presently Amended) The copper alloy of claim 64 ~~formed into a box type connector~~ wherein said electrical connector has a box shape.

66. (Previously Added) The copper alloy of claim 63 formed into a leadframe.

67. (Previously Added) The copper alloy of claim 55 formed into a rod.

68. (Previously Added) The copper alloy of claim 55 formed into a wire.